



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/798,814

03/10/2004

Sung-Yong Kang

21C-0117

7126

23413

7590

06/16/2006

CANTOR COLBURN, LLP
55 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

EXAMINER

CHEN, WEN YING PATTY

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,814

Applicant(s)

KANG ET AL.

Examiner

W. Patty Chen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-8, 11, 14 and 16-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 10, 12, 13 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's Amendment filed Mar. 23, 2006 has been received and entered. Claims 1-21 remain pending in the current application, but claims 1-8, 11, 14 and 16-21 are withdrawn from consideration.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

Art Unit: 2871

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9, 10, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshii et al. (US 6147724) in view of Lee (US 2002/0097353) further in view of Hasegawa et al. (US 5815224).

With respect to claims 9 and 15 (Amended): Yoshii et al. disclose in Figure 4 a liquid crystal display apparatus using a backlight assembly comprising:

a receiving container (element LF2) including a bottom plate and sidewalls protruded from edges of the bottom plate to form a receiving space;

a light exiting device (element GLB) disposed in the receiving space to exit a light; a liquid crystal display panel (elements SUB1 and SUB2) that converts the light into an image light;

a liquid crystal display panel supporting member (element WSPC) including a first supporting member frame portion, a second supporting member frame portion and a particle interceptor (element GC1),

the first supporting member frame portion (the horizontal portion of element WSPC formed under the display panel) having an opening formed in an internal face of the first supporting member frame portion, the second supporting member frame portion (the vertical portion of element WSPC) being vertically extended from the first supporting member frame portion, the side face of the liquid crystal display panel that is to be mounted on the liquid crystal display panel supporting member facing the inner side

face of the second supporting member frame portion (wherein the side face of sub2 faces the second supporting member frame portion); and
a chassis (element SHD) received in the receiving container, the chassis covering edges of a top face of the liquid crystal display panel.

Yoshii et al. fail to specifically disclose that the second supporting member frame portion fixes the liquid crystal display panel and that the particle interceptor being formed in a shape of a closed loop.

However, Lee disclose in Figure 5 a backlight assembly comprising a liquid crystal display panel supporting member (element 110) including a first supporting member frame portion (the horizontal portion of element 110 formed under the display panel) and a second supporting member frame portion (the vertical frame portion of element 110), wherein the second supporting member frame portion fixes the liquid crystal display panel and Hasegawa et al. disclose in Figure 43 a particle interceptor (element GC) formed in a shape of a closed loop.

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to construct a liquid crystal display apparatus as taught by Yoshii et al. wherein the second supporting member frame portion of the liquid crystal display panel supporting member fixes the liquid crystal display panel as taught by Lee, since Lee teaches that by forming the second supporting member frame portion to fix in the liquid crystal display panel helps accommodating the LCD panel thus prevents the LCD panel from escaping (Paragraphs 0028 and 0048) and wherein the particle interceptor is formed of a closed loop as taught by Hasegawa et al., since Hasegawa et al. teach that by forming the particle interceptor on all edges

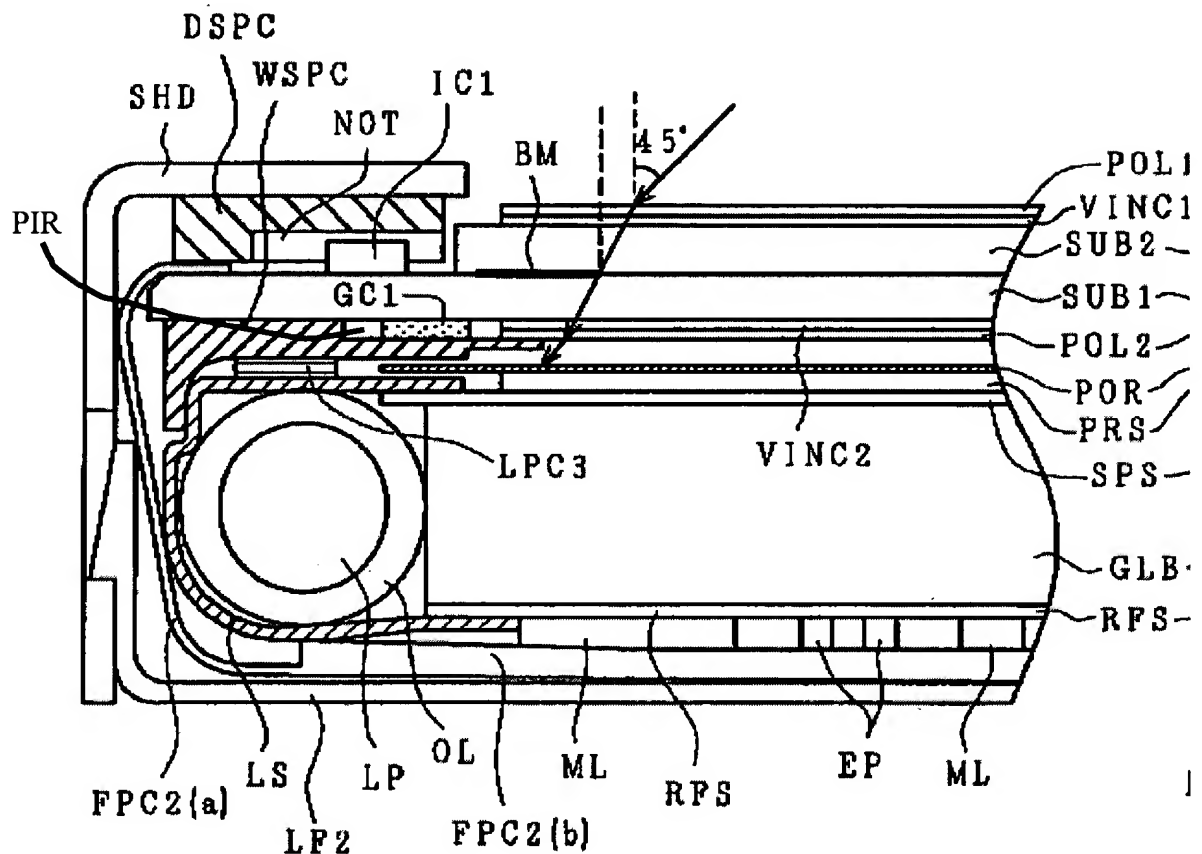
Art Unit: 2871

of the display panel helps to form a reliable contact for firmly holding the display panel (Column 45, lines 2-9).

As to claim 10: Yoshii et al. further disclose in Figure 4A that the particle interceptor corresponds to a particle intercepting protrusion (element GC1) formed on the first face of the first supporting member frame portion (base portion of element WSPC) in at least one row, and the particle intercepting protrusion includes a material having flowability (Column 10, lines 62-63, wherein the protrusions are made of rubber).

As to claim 12: Yoshii et al. further disclose in Figure 4A that the particle interceptor includes particle intercepting protrusions (element GC1) formed on the first face, and at least one particle intercepting recess (element PIR as shown in figure below) formed on the particle intercepting protrusions.

FIG. 4A



As to claim 13 (Amended): Yoshii et al. further disclose in Column 10 lines 62-63 that the particle interceptor comprises rubber.

Response to Arguments

Applicant's arguments, filed Mar. 23, 2006, with respect to the rejection(s) of claim(s) 9, 10, 12, 13 and 15 under 35 U.S.C. 103(a) as being unpatentable over Yoshii et al. (US 6147724)

in view of Hasegawa et al. (US 5815224) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Lee (US 2002/0097353) as set forth above.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to W. Patty Chen whose telephone number is (571)272-8444. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571)272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

W. Patty Chen
Examiner
Art Unit 2871

WPC 6/08/06


ANDREW SCHECHTER
PRIMARY EXAMINER